# EXHIBIT H

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS

DARELTECH, LLC,
Plaintiff,
vs. No. 4:18-CV-00702-ALM
SAMSUNG ELECTRONICS CO., LTD.,
et al.,
Defendants.

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DEPOSITION OF TAJANA SIMUNIC ROSING
San Diego, California
Friday, October 18, 2019

Reported by:
DENISE MARLOW
RPR, CSR No. 11631

Q. Do you have any opinion on his qualifications as an expert?

A. I saw his résumé. And depending on how one defines person of ordinary skill in the art, I do have some questions as to how well he could represent certain aspects of this case. But that, again, is just based on only what I saw in his résumé, since I don't know anything more about him.

Q. And what were the questions that you had concerning his qualifications?

A. What I saw is that he has a degree, I believe, in business of some sort. I think looking at his C.V. would refresh my memory. And he does seem to have some experience in software. However, I believe that a person of ordinary skill in the art as it is relevant to these particular patents in question really should have a four-year bachelor's in electrical engineering, computer science, or computer engineering, coupled with at least one year of experience in systems or user-interface design. And I do not believe that he actually has that kind of experience, again, just based on the single document that I saw.

Q. Okay. What do you understand your purpose in this case to be, at least at this juncture?

A. I was asked to provide opinion on some of the

applications.

As a part of that class, students have to work on a power management project. And as a part of that, I've developed a whole infrastructure that includes applications that they can test with, low-level operating system codes, some of the interfaces to device drivers, and as well as measurement infrastructure that would allow students to design and test their power management strategies.

This class I teach every year. Normally I have about -- it varies between 30 to about hundred students, usually master's and Ph.D. level; normally electrical engineering, computer science, or computer engineering background.

Q. Have any of the applications that you've worked on been commercially released?

A. Are you referring to Android specifically or any application?

Q. Let's start with Android.

A. I have never commercially released Android applications. However, students that I have taught have written and released applications and have sent me e-mails thanking me for what I've taught them in the class and stating that it was that knowledge that was most instrumental in them being successful in their job

and in the applications that they have designed.

Q. Have any of the students who worked on a project relating to power management in your CSE 237A class released their project commercially, to your knowledge?

A. I believe it might have happened, but I don't remember exactly. I think a couple of students had planned to do this a few years ago, and I honestly did not follow up.

Q. What programming language is used in connection with that class?

A. It depends a little bit on the level of the project that students choose to do. We use Java, Python, and C generally, most. Now, again, some of the projects will require some specialized code as well, so I make it open and possible for students to use whatever is most appropriate.

Q. What do you mean by "specialized code"?

A. So some of the students have wanted to write code that is specific to a little more sophisticated machine learning in statistical data processing algorithms, so they've used tools that are related to that as a part of the project that then interface with standard Java or Python or C code.

Q. In connection with that class, do you teach the students anything regarding touch screens, capacitive

actually in the charts and in the supplemental disclosure report.

Q. So you have not seen the IPR -- the petitions for IPR in connection with the three patent suits?

A. I have not looked at anything other than the documents listed here.

Q. Okay. What percentage of your time do you dedicate to your expert witness role?

A. That varies depending on how many cases I have at the time, but never more than 20 percent, because that is the limit that UCSD allows faculty.

Q. Let's talk about your educational background. You started with a bachelor's in electrical engineering?

A. Correct.

Q. And that's at -- that was at Northern Arizona University?

A. Yes.

Q. Do you remember any of the courses that would have had any relevancy to the patents in suit here?

A. Back then? Yeah, I took a class in C programming. I also worked on a research project that actually had to do with user-interface design on Macs. I'm not sure if that's directly listed, but it's actually under Northern Arizona University professional experience. The bullet says "Modeled tether dynamics

Q. If the term "mathematical" is omitted from mathematical upscaling, would your opinion change as to what the meaning of "upscaling" would be?

A. I was asked to provide opinion on "mathematically upscaling" term, and that is the opinion that I formed so far. I was not asked to think about an alternative. So at this point I don't have an opinion to provide.

Q. Well, where in the patent is there any discussion about mathematically upscaling something or using mathematical techniques?

A. So as we discussed, mathematical upscaling is clearly listed in the claims of this patent.

Q. But is there any -- in the specification which precedes the claims, is there any mention of a mathematical technique for upscaling?

A. I don't believe that there is detailed discussion on mathematical upscaling. However, it does appear in the file history, and in fact it was one of the critical components that allowed these claims to be accepted, from what I understand. And the relevant documents are listed in my table. This is Exhibit 1, and it is on page 1 of the part B of Exhibit 1, under "intrinsic evidence" -- or should I say defendants' evidence, and then intrinsic evidence subsection.

control different components of the screen and of the display. In context of this particular patent, it seems fairly clear, especially when it comes to the phrase that we've talked about -- and the phrase is "a section portion of the display screen and associated sensors, which is configured in a powered-off state and incapable of receiving user input" -- that we're talking about the situation in which display and sensors are both powered off and therefore cannot respond, not capable of detecting user's input.

Q. Have you seen instances where touch sensors could be turned off in part, not in whole; so in other words, a part of the entire touch sensor array would be turned off?

A. I have seen examples, and actually there are a couple of patents that I've listed. I believe those are listed on page 4 of the -- think this is No. 1 -- yeah, Exhibit 1, Section B, under defendants' evidence.

Q. Okay. You're referring to Chou and Law?

A. Exactly, the two patents.

Q. Have you ever heard of any commercialized sensors that could be turned off in a localized fashion?

A. I don't remember seeing some. I have looked into that in my own research years ago, and it seemed that it would be technically doable. It also seemed

that it might involve more costly changes, so I did not do it myself.

Q. Do any of the patents in suit contain any description about how you would implement turning off a portion of touch sensors in a device?

A. The patents in suit clearly state that there is a second portion of the display screen and associated sensors, which both of are powered off.

Q. But aside from saying "powered off," is there any -- and you researched this. Right? Is there -- if a person of ordinary skill in the art read the patent, could they understand how to turn off those sensors?

MR. NISHIMOTO: Objection. Form.

THE WITNESS: The patent, I don't believe specifically discusses the mechanism. But it is something that was well known for the person of ordinary skill in the art, as the patents that are relevant to such capability were already published at that time, so it would not have been a difficult thing to do.

BY MR. HECHT:

Q. Is it your position that two patent publications would constitute something being well known, for a person of ordinary skill?

A. It is my position that the two patents are an example of technology that exists, and somebody with

patent?

A. I believe that a person of ordinary skill in the art is never in a vacuum. They always have the context of their knowledge. They have context of the information that's available to them beyond their own knowledge and that they would have been wise to leverage it.

Q. You're suggesting that they would be -- that a person of ordinary skill of the art, if they don't have information in their own experience, would look to or search for Chou and Law, among others --

MR. NISHIMOTO: Objection. Form.

BY MR. HECHT:

Q. -- to fill in gaps? Sorry.

A. I gave those -- the two patents as an example that is illustrative example of the fact that that technology existed. I do believe that a person of ordinary skill in the art as defined as somebody who has degrees in electrical engineering, computer engineering, or computer science, and at least one year of experience of user-interface design and system design should have enough skills to be able to design a system that seems they have in fact proposed in these patents.

Q. Okay. Would a person of ordinary skill in the art understand that touch screens are not normally shut

off on a localized basis?

MR. NISHIMOTO: Objection. Form.

THE WITNESS: I'm not sure there is such a thing as "normally." In this particular patent it seems that the intention of the inventors was to in fact provide for the capability where the second portion of the display screen and associated sensors are both powered off.

BY MR. HECHT:

Q. What is your understanding of how touch sensors work?

A. What specifically are you interested in?

Q. Terms of how power is managed?

A. Power is generally managed by controlling the amount of current and voltage that goes into a particular hardware device.

Q. Is that done on a sensor-wide basis, or can that be done on a localized basis?

A. It depends on how a particular piece of hardware is designed.

Q. Are you aware of any smart phone that has capacity of such touch screen that would permit localized powered-off functionality?

A. I was asked to opine on the particular patent here. This particular patent does indicate the

capability to turn off both a portion of the display and associated sensors.

I have also provided references to other patents that clearly show that this capability existed at that time.

Q. How much power do touch sensors draw, compared to the screen?

MR. NISHIMOTO: Objection. Form.

THE WITNESS: This strongly depends on the particular design.

BY MR. HECHT:

Q. Is it generally more or less than the display screen?

MR. NISHIMOTO: Objection. Form.

THE WITNESS: That's going to strongly -- the relationship between power of touch sensors and the screen will strongly depend on the technology that is used and their relative size and how their power is managed.

BY MR. HECHT:

Q. Have you ever seen a touch sensor that used more power than a display?

A. I'm not sure.

Q. Do most touch screens continually receive input, even if they aren't used to detect a touch screen user?

organized collection of data?

A. So, as I said, I was asked to provide an opinion on specifically term "graphical content data structure" as it relates to Patents '427 and '328, and I do believe that that term should be described as an organized collection of graphics data.

Q. So you have no opinion on what a data structure is?

A. I was not asked to provide an opinion on anything other than the terms that are listed on Exhibit 1.

Q. Do you think the term "graphical content data structure" in the context of the patent is indefinite?

A. As I said, I believe the term "graphical content data structure" can most clearly be described as an organized collection of graphics data.

Q. And what's graphics data?

A. Graphics data is something that is described in the patent as a part of when it refers to graphical content data structure.

Q. Can you give me examples of graphics data?

A. Well, why don't we take a look where graphical content data structure appears.

Okay. So in Figure 28 it states, "Receive a graphical content data structure comprising the content

Q. Could they have used the graphics data structure and meant the same thing?

A. I do not know what the inventor might have wanted to do. This is not my place to speak. What I was asked to opine on is what is the best way to interpret graphical content data structure in the light of what the person of ordinary skill in the art at the time of this patent would have understood, given the information that I've been provided.

Q. Let's move on.

What is your experience with unlock images in phones?

MR. NISHIMOTO: Objection. Form.

THE WITNESS: "Unlock images in phones" is a term that is actually provided as a part of a '612 Patent that I was asked to provide an opinion on, and that unlocked image I believe is best described as graphical image on the display that may be used to unlock the device, again as it applies to the context of '612 Patent.

BY MR. HECHT:

Q. Is the unlock image interactive?

A. So unlock image was actually defined specifically as a part of intrinsic evidence as well. In fact, there is a patent that shows up right on the

front of '612 Patent, and I believe it was '721. This is -- this should be the last line in the Exhibit 1, Table B on page 10, the top box of the page. I think it's Chaudhri '721 Patent that in fact defines the unlock image. And it defines it, I believe, exactly the same as what our construction is, graphical image on the display that may be used to unlock the device. So I believe that a person of ordinary skill in the art and the inventor had a very specific definition in mind; otherwise, they would not have used the definition that was listed on their patent.

Q. What definition is listed on their patent?

A. So they listed --

Q. Sorry. You're talking about Chaudhri?

A. They listed Chaudhri as a reference, which means they clearly knew how unlock image was defined, so I take them seriously.

Q. Is it your position that listing a patent on the face of another patent means that you're adopting all the definitions in the previous patents that are listed?

A. I believe that when one lists references on a patent, that one is very familiar with those references. So a term such as "unlocked image" clearly was familiar to the person of ordinary skill in the art at the time, and also to the inventors. They're also very familiar

A. Okay.
Q. This is describing -- Figure 25 at line 31, beginning at line 31.
A. Okay.
Q. It says, "Figure 25 illustrates a display power management module for managing display power consumption, according to some embodiments. Screen power management module 2500 includes a configuration module," and then it goes on.
The next sentence says, "Screen power management module 2500 receives as input system events 2550 and user stimulus 2560, stores existing state information 2570 and screen portion transition conditions 2580, and generates as output new state information 2590."
Now, the next paragraph talks about what some of those elements do. "In some embodiments, configuration module 2510 allocates display screen space to a first portion of the display screen," and then it goes on.
Did you consider the description of the steps here in forming your opinion on what the power management module is?
A. I certainly considered the claims and the specification, along with file history.
Q. Including the algorithm for managing power?
MR. NISHIMOTO: Objection. Form.

THE WITNESS: I do not believe that the word "algorithm" appears here.

BY MR. HECHT:

Q. The word "algorithm" does not -- I don't know if it appears. I didn't see it. But does the -- what is an algorithm?

A. I was not asked to provide an opinion on that.

Q. Well, what is your practical understanding of what an algorithm is?

A. So at a very high level, my inclination is to say that it would be a sequence of instructions and that provide for specific function. However, as I said, I was not asked to provide an opinion, so this is just very preliminary.

Q. Okay. I have some questions on your research. We have the list of all your papers. Would you mind going through that list and flagging for me any papers or research or publications that relates to touch sensors.

A. When you say "relates to," what exactly do you mean?

Q. Anything, any kind of analysis on touch sensors cited in the paper.

A. So anything done with touch sensors in any way. Is that correct?